

### AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A modified glucose dehydrogenase ~~having composition comprising water-soluble *Acinetobacter calcoaceticus* pyrroloquinoline quinone (PQQGDH) as a coenzyme, wherein one or more amino acid residues in a region of 349-377 amino acid amino acid ~~Thr366~~ Thr342 and/or amino acid ~~Asp167~~ Asp143 of SEQ ID NO: 1 of water-soluble the PQQGDH derived from *Acinetobacter calcoaceticus* is~~ are replaced with other amino acid residues, and wherein said PQQGDH has an inhibition constant (K<sub>si</sub>) of 200 mM or more.

2. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme, wherein Met365 of the amino acid sequence defined in SEQ ID NO:1 is replaced with another amino acid, and has a K<sub>si</sub> value of 200 mM or more.

3. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme, wherein Met365 of the amino acid sequence defined in SEQ ID NO:1 is replaced with tryptophan or phenylalanine.

4. (Currently Amended) A The modified glucose dehydrogenase according to claim 1, ~~having pyrroloquinoline quinone as a coenzyme~~ wherein ~~Thr366~~ Thr342 of the amino acid sequence defined in SEQ ID NO: 1 of PQQGDH is replaced with another amino acid, ~~and has a K<sub>si</sub> value of 200 mM or more.~~

5. (Currently Amended) A The modified glucose dehydrogenase according to claim 1, ~~having pyrroloquinoline quinone as a coenzyme~~ wherein ~~Thr366~~ Thr342 of the amino acid sequence defined in SEQ ID NO: 1 of PQQGDH is replaced with aspartic acid, lysine, isoleucine, or ~~asparagines~~ asparagine.

6. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Tyr367 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with another amino acid, and has a K<sub>si</sub> value of 200 mM or more.

7. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Tyr367 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with aspartic acid.

8. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Ile368 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with another amino acid, and has a K<sub>si</sub> value of 200 mM or more.

9. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Ile368 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with asparagine.

10. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Cys369 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with another amino acid and has a K<sub>si</sub> value of 200 mM or more.

11. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Cys369 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with arginine.

12. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Ala374 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with another amino acid, and has a K<sub>si</sub> value of 200 mM or more.

13. (Withdrawn) A modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme wherein Ala374 of the amino acid sequence defined in SEQ ID NO: 1 is replaced with proline.

14. - 15. (Cancelled)

16. (Currently Amended) A The modified glucose dehydrogenase according to claim 1, ~~having pyrroloquinoline quinone as a coenzyme~~ wherein an amino acid residue ~~selected from the group consisting of Met365, Thr366, Thr342 Tyr367, Ile368, Cys369, and Ala374~~ of the amino acid sequence defined in SEQ ID NO:1 of PQQGDH is replaced with another amino acid and wherein ~~Asp167~~ Asp143 of SEQ ID NO:1 is replaced with glutamic acid.

17. (Currently Amended) A The modified glucose dehydrogenase according to claim 1, ~~having pyrroloquinoline quinone as a coenzyme~~ wherein ~~Thr366~~ Thr342 of the amino acid sequence defined in SEQ ID NO:1 of PQQGDH is replaced with aspartic acid, lysine, isoleucine, or asparagine, and wherein ~~Asp167~~ Asp143 of SEQ ID NO:1 is replaced with glutamic acid.

18. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Cys Gly Glu Xaa Thr Tyr Ile (SEQ ID NO:3)

wherein Xaa is Met or Trp.

19. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Gly Glu Met Xaa Tyr Ile Cys (SEQ ID NO:4)

wherein Xaa is Asp, Lys, Ile or Asn.

20. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Glu Met Thr Asp Ile Cys Trp (SEQ ID NO:5).

21. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Met Thr Tyr Asp Cys Trp (SEQ ID NO:6).

22. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Thr Tyr Ile Arg Trp Pro Thr (SEQ ID NO:7).

23. (Withdrawn) A glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme comprising the following amino acid sequence:

Pro Thr Val Pro Pro Ser (SEQ ID NO:8).

24. (Withdrawn) A gene encoding a modified glucose dehydrogenase as claimed in claim 1.

25. (Withdrawn) A vector comprising the gene as claimed in claim 24.

26. (Withdrawn) A transformant comprising the gene as claimed in claim 24.

27. (Withdrawn) A transformant as claimed in claim 26, wherein the gene as claimed in claim 24 is integrated in its chromosome.

28. (Withdrawn) A method for preparing a water-soluble PQQGDH, comprising culturing the transformant as claimed in claim 27 and preparing water-soluble fraction from the cells of the transformant.

29. (Currently Amended) A glucose assay kit comprising the modified glucose dehydrogenase ~~as claimed in~~ according to claim 1.

30. (Currently Amended) A glucose sensor comprising the modified glucose dehydrogenase ~~as claimed in~~ according to claim 1.